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PTO/SB/21 (09-04)

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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/800,173
Filing Date	03/11/2004
First Named Inventor	Tonomura
Art Unit	2831
Examiner Name	Ngo, Hung V.
Attorney Docket Number	PD-02W014

### ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
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<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
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<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		

Remarks

If there are any debits or credits, please apply to Raytheon deposit account 50-0616.

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Raytheon Company		
Signature			
Printed name	Leonard A. Alkov		
Date	12/09/2005	Reg. No.	30,021

### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Elaine Panousis	Date	12/09/2005

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Attorney's Docket No. PD-02W014

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Serial No. 10/800,173  
Filed: 03/11/2004  
For: A Periodic Interleaved Star with Vias  
Electromagnetic Bandgap Structure  
for Microstrip and Flip Chip on Board  
Applications

Art Unit: 2831  
Examiner: Ngo, Hung V.

### INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Under his duty of disclosure under Rule 35 U.S.C. Section 1.56 the Applicant respectfully submits to the United States Patent and Trademark Office a copy of art cited during a European Patent Search for pending PCT Application No. PCT/US2004/034792. The art was received by Applicant's representative and certifies that it is being submitted to the United States Patent and Trademark Office for the Examiner's consideration and review within three months of that date.

Applicant attests that this search was brought to Applicant's attention less than three (3) months ago. Therefore, no fee is submitted at this time. However, if any fee is required for the processing of this PTO/SB/08A and Information Disclosure Statement, Applicant authorizes the charge against assignee's Deposit Account No. 50-0616.

The art cited from the European search includes seven (7) of these references to be of relevance to the present invention when taken into combination with other art.

We include with this Information Disclosure Statement a properly prepared PTO PTO/SB/08A and a copy of the cited references.

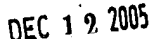
Do not hesitate to contact the undersigned with your questions regarding this information.

Registration No. 30,021

Tel. No.: 310.647.2577  
Fax No.: 310.647.2616

Leonard A. Alkov, Attorney for Applicants

Raytheon Company  
P.O. Box 902 (E4/N119)  
El Segundo, CA 90245-0902



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Substitute for form 1449/PTO

*(Use as many sheets as necessary)*

Sheet	1	of	2
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**Complete if Known**

Application Number	10/800,173
Filing Date	03/11/2004
First Named Inventor	Tonomura
Art Unit	2831
Examiner Name	Ngo, Hung V.
Attorney Docket Number	PD-02W014

[illegible][illegible]

Examiner  
Signature

Date  
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/800,173
		Filing Date	03/11/2004
		First Named Inventor	Tonomura
		Art Unit	2831
		Examiner Name	Ngo, Hung V.
Sheet 2	of 2	Attorney Docket Number	PD-02W014

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		ZIROFF, A., et al, "A Novel Approach for LTCC Packaging Using a PBG Structure for Shielding and Package Mode Suppression," Microwave Conf., 2003. 33rd European, pp. 419-422; XP010680894; ISBN: 1-58053-835-5.	
		ABHARI, R., et al, "Metallo-Dielectric Electromagnetic Bandgap Structures for Suppression and Isolation of the Parallel-Plate Noise in High-speed Circuits," IEEE Trans., vol. 51, no. 6, June 2003; pp. 1629-1639; XP001163337; ISSN: 0018-9480;	
		pp. 1638-1639; fig. 18.	
		MA, KUANG-PING, et al, "Leakage Suppression in Stripline Circuits Using a 2-D Photonic Bandgap Lattice," Microwave Symposium Digest, 1999 IEEE MIT-S Int'l, Anaheim, CA, June	
		1999, Piscataway, NJ, IEEE, vol. 1, 13 June 1999; ppg. 73-76, XP010343545; ISBN: 0-7803-5135-5.	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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